

**WHAT IS CLAIMED IS:**

1. A thermal interface comprising:  
a carrier having opposed surfaces;  
a layer of a phase-change material on one of the surfaces of the carrier; and  
a layer of a pliable, thermal compound on the other of the surfaces of the carrier.
2. The thermal interface of claim 1 in which:  
the carrier comprises a thermally-conductive material.
3. The thermal interface of claim 2 in which:  
the thermally-conductive material comprises a metal foil.
4. The thermal interface of claim 2 in which:  
the thermally-conductive material comprises a thin, thermally-conductive plastic sheet.
5. The thermal interface of claim 2 in which:  
the carrier comprises a material selected from the group consisting of copper, gold, silver, aluminum and plastic.
6. The thermal interface of claim 1 in which:  
the phase-change material comprises a paraffin-base material.
7. The thermal interface of claim 1 in which:  
the pliable, thermal compound comprises a thermally conductive grease.
8. The thermal interface of claim 7 in which:

the thermally-conductive grease comprises a silicone-type grease.

9. The thermal interface of claim 1 in which:  
the pliable, thermal compound comprises a thermally-conductive paste.

10. A thermal interface product comprising:  
a carrier having opposed surfaces;  
a layer of a phase-change material on one of the surfaces of the carrier;  
a layer of a pliable, thermal compound on the other of the surfaces of the carrier; and  
a removable protective covering overlying the pliable, thermal compound layer.

11. The thermal interface product of claim 10 in which:  
the removable protective covering comprises a peelable backing.

12. The thermal interface product of claim 10 in which:  
the removable protective covering comprises a cap removably attached to the carrier.

13. The thermal interface product of claim 10 in which:  
the carrier comprises a thermally-conductive material.

14. The thermal interface product of claim 13 in which:  
the thermally-conductive material comprises a metal foil.

15. The thermal interface product of claim 13 in which:

the thermally-conductive material comprises a thin, thermally-conductive plastic sheet.

16. The thermal interface product of claim 13 in which:  
the carrier comprises a material selected from the group consisting of copper, gold, silver, aluminum and plastic.
17. The thermal interface product of claim 10 in which:  
the phase-change material comprises a paraffin-base material.
18. The thermal interface product of claim 10 in which:  
the pliable, thermal compound comprises a thermally-conductive grease.
19. The thermal interface product of claim 18 in which:  
the thermally-conductive grease comprises a silicone-type grease.
20. The thermal interface product of claim 10 in which:  
the pliable, thermal compound comprises a thermally-conductive paste.
21. The thermal interface product of claim 11 in which:  
the peelable backing comprises a release liner.
22. An assembly comprising:  
a substrate;  
an electronic component mounted on said substrate;  
a heat sink; and  
a thermal interface interposed between a surface of said electronic component and a surface of said heat sink for transferring heat

generated by said electronic component to said heat sink, said surfaces of said heat sink and said electronic component being in confronting relationship, said thermal interface comprising:

a carrier having opposed surfaces;

a layer of a phase-change material interposed between one of the surfaces of the carrier and one of said confronting surfaces of said heat sink and said electronic component; and

a layer of a pliable, thermal compound interposed between the other surface of the carrier and the other one of said confronting surfaces.

23. The assembly of claim 22 in which:

the carrier comprises a thermally-conductive material.

24. The assembly of claim 23 in which:

the thermally-conductive material comprises a metal foil.

25. The assembly of claim 23 in which:

the thermally-conductive material comprises a thermally-conductive plastic sheet.

26. The assembly of claim 22 in which:

the carrier comprises a material selected from the group consisting of copper, gold, silver, aluminum and thermally-conductive plastic.

27. The assembly of claim 22 in which:

the phase-change material comprises a paraffin-base material.

28. The assembly of claim 22 in which:

the pliable, thermal compound comprises a thermally-conductive grease.

29. The assembly of claim 28 in which:  
the thermally-conductive grease comprises a silicone-type grease.

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30. The assembly of claim 22 in which:  
the pliable, thermal compound comprises a thermally-conductive paste.

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